Amendments to the Claims

Please amend the claims as follows:

Claims 1-30 (Canceled).

Claim 31 (Currently Amended): A pharmaceutical composition for the treatment and/or prophylaxis of an HCV infection in a host, comprising an effective treatment amount of a 2'.3'-dideoxynucleoside of the formula:

or a pharmaceutically acceptable salt or prodrug thereof, wherein

- (i) X is O, S, S=O, SO₂, NR¹, N⁺R¹R², CH₂, CHF or CR³R⁴;
 R¹ and R² are independently hydrogen, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, or C₃₋₈ evcloalkyl;
 - R^3 and R^4 are independently hydrogen, halogen (F, Cl, Br, or I), OH or $OR^5;$
- R⁵ is hydrogen or a hydroxyl protecting group; -such as alkyl, acyl or silyl;
- (ii) Y is NH₂, NHR⁶, NR⁶R⁷, OH or OR⁸
 cach R⁶, R⁷ and R⁷ is independently H, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₈ cycloalkyl, cyclopropyl, or C₂₋₆ acyl;
- (iii) Z is chosen from hydrogen, halogen (F, Cl, Br, or I), C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, CN, CF₃, N₃, NO₂, aryl, heteroaryl and COR°;

2

- R^9 is chosen from H, OH, SH, $C_{1\cdot6}$ alkyl, $C_{1\cdot6}$ aminoalkyl, $C_{1\cdot6}$ alkoxy and $C_{1\cdot6}$ thioalkyl; and
- (iv) R is hydrogen, phosphate; acyl; -C(O)R¹⁰, alkyl; sulfonate ester; sulfonyl; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group, which, when administered in vivo, is capable of providing a compound wherein R is H or phosphate;
 - R^{10} is a $C_{1.6}$ alkyl, $C_{2.6}$ alkenyl, $C_{2.6}$ alkynyl, aryl, monophosphate, diphosphate, triphosphate, or $-P(O)(OR^{11})_2$;
 - each R^{11} is independently hydrogen, $C_{1.6}$ alkyl, $C_{2.6}$ alkenyl, $C_{2.6}$ alkynyl or a hydroxyl-protecting group;

together with pharmaceutically acceptable carrier.

- Claim 32 (Original): The pharmaceutical composition of claim 31, wherein Z is not hydrogen.
- Claim 33 (Original): The pharmaceutical composition of claim 31, wherein Z is a halogen (F, Cl, Br, or I).
- Claim 34 (Original): The pharmaceutical composition of claim 33, wherein Z is F.
- Claim 35 (Original): The pharmaceutical composition of claim 31, wherein the 2',3'dideoxynucleoside is in the β-L-configuration.
- Claim 36 (Original): The pharmaceutical composition of claim 35, wherein the β-L-2',3'dideoxynucleoside is enantiomerically enriched.
- Claim 37 (Original): The pharmaceutical composition of claim 35, wherein the β-L-2',3'dideoxynucleoside is substantially free of the β-D-2',3'-dideoxynucleoside.
- Claim 38 (Original): The pharmaceutical composition of claim 35, wherein the β-L-2',3'dideoxynucleoside is in isolated form.

Claim 39 (Currently Amended): A pharmaceutical composition for the treatment and/or prophylaxis of an HCV infection in a host, comprising an effective amount of a compound of the formula:

or a pharmaceutically acceptable salt or prodrug thereof, wherein

Z' is chosen from halogen (F, Cl, Br, or I), C1 6 alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, CN, CF₃, N₃, NO₂, aryl, heteroaryl and COR⁹; and

 R^9 is chosen from H, OH, SH, $C_{1\cdot 6}$ alkyl, $C_{1\cdot 6}$ aminoalkyl, $C_{1\cdot 6}$ alkoxy and $C_{1\cdot 6}$ thioalkyl together with a pharmaceutically acceptable carrier.

Claim 40 (Currently Amended): A pharmaceutical composition for the treatment and/or prophylaxis of an HCV infection in a host, comprising an effective amount of a compound of the formula:

or a pharmaceutically acceptable salt or prodrug thereof, wherein

(i) R^6 is [[H,]] C_{16} alkyl, C_{26} alkenyl, C_{26} alkynyl, $C_{3.8}$ cycloalkyl, cyclopropyl, or C_{26} acyl; and

- (ii) R is hydrogen, phosphate, acyl, —C(O)R¹⁰, alkyl, sulfonate ester, sulfonyl, a lipid, an amino acid, a carbohydrate, a peptide, a cholesterol, or other pharmaceutically acceptable leaving group; phosphate; acyl; —C(O)R¹⁰, alkyl; sulfonate ester; sulfonyl; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group, which, when administered in vivo, is capable of providing a compound wherein R is H or phosphate;
- (iii) Z' is chosen from halogen (F, Cl, Br, or I), C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, CN, CF₃, N₃, NO₂, aryl, heteroaryl and COR⁹; and

 R^9 is chosen from H, OH, SH, $C_{\rm L6}$ alkyl, $C_{\rm L6}$ aminoalkyl, $C_{\rm L6}$ alkoxy and $C_{\rm L6}$ thioalkyl;

together with a pharmaceutically acceptable carrier.

Claim 41 (Cancel).

Claim 42 (Currently Amended): A pharmaceutical composition for the treatment and/or prophylaxis of an HCV infection in a host, comprising an effective amount of a compound of the formula:

or a pharmaceutically acceptable salt or prodrug thereof,

- (i) R^6 is [[H,]] C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, or C_{3-8} cycloalkyl; and
- (ii) R is hydrogen, phosphate; acyl; -C(O)R¹⁰, alkyl; sulfonate ester; sulfonyl; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group; which, when administered in vivo, is capable of providing a compound wherein R is H or phosphate;

together with a pharmaceutically acceptable carrier.

- Claim 43 (Currently Amended): The pharmaceutical composition of any one of claims <u>39-40</u> and 42, [[40,]] wherein the β-L-2',3'-dideoxynucleoside is enantiomerically enriched.
- Claim 44 (Currently Amended): The pharmaceutical composition of any one of claims 39-40 and 42, [[40,]] wherein the β-L-2',3'-dideoxynucleoside is substantially free of the β-D-2',3'-dideoxynucleoside.
- Claim 45 (Currently Amended): The pharmaceutical composition of any one of claims 39-40 and 42. [[40,]] wherein the β-L-2',3'-dideoxynucleoside is in an isolated form.
- Claim 46 (Currently Amended): A pharmaceutical composition for reducing the biological activity of a Flaviviridae viral infection in a host comprising an effective amount of a 2',3'-dideoxynucleoside of the formula:

or a pharmaceutically acceptable salt or prodrug thereof, wherein

- (i) X is O, S, S=O, SO₂, NR¹, N⁺R¹R², CH₂, CHF or CR³R⁴;
 - R^1 and R^2 are independently hydrogen, $C_{1.6}$ alkyl, $C_{2.6}$ alkenyl, $C_{2.6}$ alkynyl, or $C_{3.8}$ cycloalkyl;
 - R³ and R⁴ are independently hydrogen, halogen (F, Cl, Br, or I), OH or OR⁵;
 - R⁵ is hydrogen or a hydroxyl protecting group; such as alkyl, acyl or silyl;
- (ii) Y is NH₂, NHR⁶, NR⁶R⁷, OH or OR⁸

- each R^6 , R^7 and R^7 is independently H, $C_{1.6}$ alkyl, $C_{2.6}$ alkenyl, $C_{2.6}$ alkynyl, $C_{3.8}$ cycloalkyl, cyclopropyl, or $C_{2.6}$ acyl;
- (iii) Z is chosen from hydrogen, halogen (F, Cl, Br, or I), C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, CN, CF₃, N₃, NO₂, aryl, heteroaryl and COR⁹;
 - R^9 is chosen from H, OH, SH, $C_{\rm l-6}$ alkyl, $C_{\rm l-6}$ aminoalkyl, $C_{\rm l-6}$ alkoxy and $C_{\rm l-6}$ thioalkyl; and
- (iv) R is hydrogen, phosphate; acyl; -C(O)R¹⁰, alkyl; sulfonate ester; sulfonyl; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group; which, when administered in vivo, is capable of providing a compound wherein R is H or phosphate;
 - R¹⁰ is a C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, aryl, monophosphate, diphosphate, triphosphate, or -P(O)(OR¹¹)₂;
 - each R¹¹ is independently hydrogen, C_{1.6} alkyl, C_{2.6} alkenyl, C_{2.6} alkynyl or a hydroxyl-protecting group;

together with a pharmaceutically acceptable carrier.

- Claim 47 (Original): The pharmaceutical composition of claim 46, wherein Z is not hydrogen.
- Claim 48 (Original): The pharmaceutical composition of claim 46, wherein Z is a halogen (F, Cl, Br, or I).
- Claim 49 (Original): The pharmaceutical composition of claim 48, wherein Z is F.
- Claim 50 (Original): The pharmaceutical composition of claim 46, wherein the 2',3'dideoxynucleoside is in the β-L-configuration.
- Claim 51 (Currently Amended): A pharmaceutical composition for reducing the biological activity of a Flaviviridae viral infection in a host comprising an effective amount of a compound of the formula:

or a pharmaceutically acceptable salt or prodrug thereof, wherein

Z' is chosen from halogen (F, Cl, Br, or 1), Cl-6 alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, CN, CF₃, N₃, NO₂, aryl, heteroaryl and COR⁹; and

 R^9 is chosen from H, OH, SH, C_{16} alkyl, C_{16} aminoalkyl, C_{16} alkoxy and C_{16} thioalkyl. together with a pharmaceutically acceptable carrier.

Claim 52 (Currently Amended): A pharmaceutical composition for reducing the biological activity of a Flaviviridae viral infection in a host comprising an effective amount of a compound of the formula:

or a pharmaceutically acceptable salt or prodrug thereof, wherein

- (i) R⁶ is H, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₈ cycloalkyl, cyclopropyl, or C₂₋₆ acyl; and
- (ii) R is hydrogen, phosphate; acyl; -C(O)R¹⁰, alkyl; sulfonate ester; sulfonyl; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically

8

acceptable leaving group, which, when administered in vivo, is eapable of providing a compound wherein R is H or phosphate:

(iii) Z' is chosen from halogen (F, Cl, Br, or 1), C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, CN, CF₃, N₃, NO₂, aryl, heteroaryl and COR⁹; and

 R^9 is chosen from H, OH, SH, $C_{1\cdot6}$ alkyl, $C_{1\cdot6}$ aminoalkyl, $C_{1\cdot6}$ alkoxy and $C_{1\cdot6}$ thioalkyl;

together with a pharmaceutically acceptable carrier.

Claim 53 (Cancelled).

Claim 54 (Currently Amended): A pharmaceutical composition for reducing the biological activity of a Flaviviridae viral infection in a host comprising an effective amount of a compound of the formula:

or a pharmaceutically acceptable salt or prodrug thereof,

- (i) R⁶ is [[H,]] C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, or C₃₋₈ cycloalkyl; and
- (ii) R is hydrogen, phosphate; acyl; -C(O)R¹⁰, alkyl; sulfonate ester; sulfonyl; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group; which, when administered in vivo, is capable of providing a compound wherein R is H or phosphate:

together with a pharmaceutically acceptable carrier.

- Claim 55 (Original): The pharmaceutical composition according to claim 52, wherein the Flaviviridae viral infection is an HCV infection.
- Claim 56 (Currently Amended): The pharmaceutical composition according to any one of elaims claim 31 or claim 46, further comprising one or more other antiviral agent(s).
- Claim 57 (Original): The pharmaceutical composition according to claim 56, wherein the antiviral agent is selected from the group consisting of ribavirin, interferon, PEGASYS (pegylated interferon alfa-2a), INFERGEN (interferon alfacon-1), OMNIFERON (natural interferon), ALBUFERON, REBIF (interferon beta-1a), Omega Interferon, Oral Interferon Alpha, Interferon gamma-1b, Interleukin-10, IP-501, Merimebodib VX-497, AMANTADINE (Symmetrel), HEPTAZYME, IDN-6556, XTL-002, HCV/MF59, CIVACIR, LEVOVIRIN, VIRAMIDINE, ZADAXIN (thymosin alfa-1), CEPLENE (histamine dihydrochloride), VX 950/LY 570310, ISIS 14803, IDN-6556 and JTK 003.
- Claim 58 (Currently Amended): The pharmaceutical composition according to any one of elaims claim 31 or claim 46, wherein the host is a human.
- Claim 59 (Currently Amended): The pharmaceutical composition according to any one of elaims claim 32 or claim 46, wherein the host is also infected with HIV and/or HBV.
- Claim 60 (Original): The pharmaceutical composition according to claim 59, wherein the host is a human.
- Claim 61 (Withdrawn; New): A method for the treatment of an HCV infection in a host, which comprises:
 - administering an effective amount of the pharmaceutical composition as claimed in any one of the claims 31-40 and 42.
- Claim 62 (Withdrawn; New): The method as claimed in claim 61, wherein the host is a human.
- Claim 63 (Withdrawn; New): The method as claimed in claim 61, wherein the host is also infected with HIV and/or HBV.

- Claim 64 (Withdrawn; New): A method for the treatment of an HCV infection in a host, which comprises:
 - administering an effective amount of the pharmaceutical composition as claimed in claim 43.
- Claim 65 (Withdrawn; New): The method as claimed in claim 64, wherein the host is a human.
- Claim 66 (Withdrawn; New): The method as claimed in claim 64, wherein the host is also infected with HIV and/or HBV.
- Claim 67 (Withdrawn; New): A method for the treatment of an HCV infection in a host, which comprises:
 - administering an effective amount of the pharmaceutical composition as claimed in claim
 44.
- Claim 68 (Withdrawn; New): The method as claimed in claim 67, wherein the host is a human.
- Claim 69 (Withdrawn; New): The method as claimed in claim 67, wherein the host is also infected with HIV and/or HBV.
- Claim 70 (Withdrawn; New): A method for the treatment of an HCV infection in a host, which comprises:
 - administering an effective amount of the pharmaceutical composition as claimed in claim 45.
- Claim 71 (Withdrawn; New): The method as claimed in claim 70, wherein the host is a human.
- Claim 72 (Withdrawn; New): The method as claimed in claim 70, wherein the host is also infected with HIV and/or HBV.
- Claim 73 (Withdrawn; New): A method for reducing the biological activity of a Flaviviridae viral infection in a host, which comprises:

administering an effective amount of the pharmaceutical composition as claimed in any one of claims 46-52 and 54.

Claim 74 (Withdrawn; New): The method as claimed in claim 73, wherein the host is a human.

Claim 75 (Withdrawn; New): The method as claimed in claim 73, wherein the host is also infected with HIV and/or HBV.